

## Chapter 9 - Maintenance Control

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## **Chapter 9**

### **Maintenance Control**

#### **9.1 Maintenance Control.**

The process of controlling maintenance requires information concerning equipment status, operational requirements, workload, and personnel assets available to perform the job. Efficient operation requires that all information concerning these areas pass through the maintenance control work center (W/C), hereafter to be called maintenance control (M/C). In order to accurately assess and determine proper courses of action, maintenance control must receive up-to-date information. In every situation, maintenance control remains the controlling agent, acting as event manager, for all maintenance actions.

**9.1.1** The group and work center supervisors shall be responsible for the actual effort within their areas. They must keep maintenance control fully informed of any problems that can affect equipment operation and the maintenance process.

**9.1.2** The ALRE maintenance officer will function as the maintenance control officer and shall be responsible for the overall management of the maintenance effort. This responsibility is exercised through the M/C supervisor. He/she shall direct the maintenance evolutions within the division.

**9.1.3** Only the ALRE maintenance officer or the M/C supervisor shall have authority to certify that maintenance actions have been completed and that equipment can be returned to operational status. The maintenance control supervisor shall have this authority designated in writing by the commanding officer.

**9.1.4** Clear communications between the work center and maintenance control are essential to successful operation of the maintenance program. Two-way voice communication, which is not overcome by inherent operational noise levels, must be available. Portable communication should be available between the ALRE maintenance officer and the work site. Back-up systems such as sound-powered phones, and similar equipment must be available as secondary means. Additionally, communications within the W/C operating areas must provide adequate and reliable information, as events occur, to ensure that operators are aware of on-going activities and/or emergency situations.

**9.1.5** Effective maintenance control requires current information. The Visual Information Display System (VIDS) and maintenance requirement (MR) status boards are designed to provide optimum

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status information required for control of maintenance. The VIDS and MR status boards are management tools that provide a graphic display of vital, up-to-date information on a continuing basis. Each change in job status will be reflected on the VIDS board. The board displays all job status information, particularly system problems or failures and supply status, and provides the ability to review the overall situation quickly. This system allows the ALRE maintenance officer, M/C supervisor, group and W/C supervisors to carry out their duties more effectively and efficiently.

## **9.2 Job Control Number (JCN)**

**9.2.1** The JCN for each maintenance task is composed of the cognizant work center designator (i.e., VB01) and the job sequence number (JSN). All outstanding maintenance actions for each work center, whether IN WORK, AWAITING MAINTENANCE, or AWAITING PARTS, will be posted on the M/C VIDS board (see figures 9-1 and 9-2). Figure 9-3 shows the work center VIDS board with systems/component identification in the equipment column (left hand side).

**9.2.2** The JSN Log shall be maintained for each work center. The unit identification code (UIC) and work center code must be entered on each page of the log. A separate JSN for each maintenance action reported from each work center must be assigned. These JSNs shall be in sequential order. The W/C supervisor shall ensure that an identical JCN is assigned to the maintenance action and to any material requested.

## **9.3 Visual Information Display System (VIDS) Board**

**9.3.1** VIDS boards consist of enlarged cardex type pockets for the visual display of system status. Each pocket is overlapped by the one above so that approximately a 3/8" strip is visible at the bottom of the pockets. The strip provides basic job information including work center and equipment discrepancy. VIDS boards are available in three sizes: 100-pocket, 50-pocket, and 25-pocket.

**9.3.2** The M/C VIDS board provides the current IN WORK, awaiting maintenance (AWM), and awaiting parts (AWP) status of all ship's force jobs. VIDS board configuration in the W/C's is similar to that in maintenance control. Outside maintenance activity (VRT, shipyard, SIMA, etc.) job status will be displayed on a separate VIDS board in M/C (only) and is described in paragraph 9.11.

**9.3.3** The M/C VIDS board layout, shown in figure 9-1, includes:

a. VIDS board space is used to display work center designations. Identification of the W/C systems within the W/C maintenance areas, as depicted in figure 9-1 is optional.

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b. Graduated space for displaying outstanding discrepancies in an in-work status. Column is entitled IN WORK.

c. Graduated space for displaying discrepancies that are in a deferred or awaiting maintenance status. Column is entitled AWM.

d. Graduated space for displaying outstanding jobs that are in an awaiting parts status. Column is entitled AWP.

e. The VIDS board layout is flexible and can be used for a variety of informational presentations, but the preceding four elements are mandatory and shall be required of all branches and work centers.

f. Boards may have additional columns to monitor/manage such items as weekly PMS requirements, QA requirements (i.e., awaiting functional check, no-load, MAF completion), and to provide visual TAG-OUT indicators. Figure 9-2 shows a board with additional columns. Optional board columns would be used as follows:

(1) PMS - Pre-printed PMS MAF cards containing the MRC code (for example MAF cards with weekly periodicity MRC codes) are posted on the VIDS board at the beginning of the PMS week. Once posted, the PMS maintenance action is tracked to ensure completion by the end of the week.

(2) QA - For jobs requiring post-maintenance functional verification (no-loads, etc.). Jobs have been accomplished but are pending QA approval until those requirements are met. Also used for completed jobs awaiting QA MAF verification.

(3) TAG-OUT - Provides visual indication of tag-out conditions. Supplements current procedures with a VIDS board visual reference to outstanding tag-outs.

#### **9.4 VIDS Board Verification**

**9.4.1** Daily verification of the maintenance control VIDS board with the work centers, by W/C, job sequence number (JSN) and Julian date, is essential to maintain current and correct job and equipment status. Concurrent status provides a quick and accurate review of all maintenance actions.

**9.4.2** All MAF cards initiated by work centers will remain on the maintenance control, W/C, QA and MS (as required) VIDS boards until final action is completed. In order to maintain constant status of all maintenance tasks, every job status change must be reflected on each applicable VIDS board.

**NOTE**

**Maintenance not scheduled for action within the next 30 days and that is listed on the Current Ship's Maintenance Project (CSMP) need not be displayed on the ALRE VIDS board.**

**9.4.3** Whenever a job is placed in AWM status or parts are required which halts work, the MAF card is moved from IN WORK to the proper column, either AWM or AWP. All changes must be reflected on the maintenance control VIDS board and all cognizant W/C VIDS boards.

**9.4.4** Daily, at a time specified by the maintenance control supervisor, each W/C supervisor (or assistant) shall verify every outstanding MAF card and status on his/her VIDS board with maintenance control. Any variations in JCN, Julian date, job status, and/or outstanding MAF card will be resolved at this time. Verification may be done via phone, intercom, or in person using a written list, as locally established.

**9.4.5** The W/C supervisor (or assistant) shall certify verification by annotating the date/time and initials alongside the W/C designator on the M/C VIDS board or on a form located near M/C VIDS board. If a local form is used, it must be posted as to be clearly visible and will be established for 1-day use.

**9.4.6** For each MAF card, a ALRE MAF must be initiated. Daily verification includes physical sighting of those MAFs to verify that they are actually initiated.

**9.5 Maintenance Action Form (MAF) Card**

**9.5.1** When maintenance is required, MAF cards are initiated and placed on the VIDS board. Maintenance control and the work centers will utilize duplicate 3 X 5 inch MAF cards, shown in figure 9-4, for every job requiring documentation. MAF cards will be inserted on the applicable VIDS line in the appropriate column, (IN WORK, AWM, or AWP). When the job is started, the MAF card is placed in the IN WORK column; if the job is deferred, the MAF card is placed in the AWM column; and, if parts are required before any further maintenance can be performed, the MAF card is placed in the AWP column. Maintenance control shall direct the work centers to place MAF cards IN WORK, AWM or AWP status, as appropriate.

**9.5.2** The MAF card lists the W/C designation and JSN in the appropriate blocks. The "when discovered" Julian date shall be annotated on the MAF Card in the block provided to assist in tracking the job. This date must match the date found in block 17 of the ALRE MAF.

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**NOTE**

The Organizational Maintenance Management System (OMMS) computer will automatically provide a Julian date when the JCN is generated. Review and change (if necessary) this number in OMMS to ensure it reflects the discrepancy's actual when discovered date if the maintenance data is entered into OMMS on a different date than when the discrepancy was actually discovered.

**9.5.3** The MAF card uses colors in the priority section to indicate system and maintenance status. These colors are added as appropriate using colored pencil, felt-tip markers, etc., and shall be standardized as follows:

a. BLUE - used in the LIM block to indicate limited capability (i.e., approaching hit limit, marginal operability, etc.)

b. RED - used in DN block to indicate equipment is out of commission (i.e., inoperable, taken apart, reached hit limit, etc.)

c. NO COLOR - routine maintenance action not affecting equipment operability.

d. BLACK - when a maintenance action has been completed and inspected at the proper level, and only a functional check remains to return the equipment to service, a BLACK mark shall be made across all four blocks of the priority section.

**9.5.4** Similarly, MS and QA blocks are provided to indicate requirements for MS augmentation of the cognizant W/C, and QAI/CDQAI (not CDI) inspection of the job. The method of annotating these blocks shall be standardized as follows:

a. GREEN - used to indicate MS augmentation where maintenance support action is required to assist the cognizant work center.

b. YELLOW - used to indicate requirement for QAI/CDQAI (not CDI) inspection of maintenance action.

**9.5.5** Jobs requiring QAI/CDQAI (not CDI) inspection will be reflected with a MAF card on the QA VIDS board. Jobs requiring MS participation will be similarly reflected on the MS VIDS board. MS personnel job man-hours will be documented on the MAF (in block 30, S/F MHRS) as a part of the total job man-hours by the cognizant W/C supervisor; additionally, MS will track their own man-hours on the appropriate MAF card for transcription into a monthly summary. (MAFs do not segregate man-hours by work center.) MS and QA must

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track status changes of all pertinent jobs (MAF cards) on their respective VIDS boards.

## **9.6 ALRE Maintenance Action Form (MAF)**

**9.6.1** The ALRE MAF (OPNAV 4790/160) is designed to provide recorded information concerning inspections and maintenance actions performed on ALRE (see figure 9-5). The ALRE MAF shall be used to document all corrective and preventive inspections and maintenance actions performed on ALRE with the exception of pre- and post-operational inspections. Pre- and post-operational inspections may instead be documented on formal pre- or post-operational inspection forms which shall be retained for a minimum of 5 operating days. Appendix E contains sample inspection forms that may be modified to fit local requirements.

**9.6.2** Inspections and maintenance actions documented on the MAF are coded in sufficient detail to permit collection of necessary information relating to maintenance actions and equipment performance. Codes used on the MAF permit machine processing within OMMS. Blocks 1 through 45 of the MAF are identical to the OPNAV 4790/2R. As such, the ALRE MAF is used to support the Current Ships' Maintenance Project (CSMP). The MAF serves as a single source document that will provide automatic processing of OPNAV 4790/2Rs and 4790/CKs, Automated Work Requests (AWRs) (OPNAV 4790/2R), automatic updating of CSMP, equipment history files, parts usage data, trend analysis, and man-hour documentation.

### **NOTE**

**Use of correct maintenance codes when documenting ALRE maintenance is essential for accurate local and historical trend analysis.**

**9.6.3** The MAF format is identical to that used in the Shipboard Organizational Maintenance Management System (OMMS). After job completion, M/C reviews the accuracy of the completed MAF, closes out the MAF and forwards the MAF to QA for filing. A copy may be provided to the work center. Utilize the guidance provided in figures 9-6 through 9-7 to enter data into OMMS and to route Maintenance Action Forms (MAFs). In the event that the OMMS system is down, MAF-1 is retained by M/C until entry into the system is completed.

**9.6.4** To provide the information required, MAFs must be completed, as appropriate, for each inspection and/or maintenance action. A block-by-block description is presented in appendix B for each application. It is essential that all applicable blocks be filled out correctly, both to provide accurate maintenance data and to avoid rejection during data processing.

**NOTE**

When entering MAF data into OMMS the computer will automatically generate the UIC. Therefore, it is not necessary to annotate the UIC on an ALRE MAF unless a hard copy will leave the command. The work center designation must be annotated on the MAF and entered into OMMS. The JSN is assigned sequentially by the OMMS computer, which ensures that each JCN is unique. This number must be annotated on the ALRE MAF.

The MAF is divided into seven areas as follows:

- a. Information: contains JCN, equipment configuration data, and discrepancy description codes.
- b. Deferral Action: contains deferral dates and man-hours expended information.
- c. Completed Action: contains action taken codes, completion date and total man-hours expended.
- d. Remarks/Description: contains a narrative description of the discrepancy and work done to correct it.
- e. Additional ALREMP Information: contains ALRE-specific codes, safety tag data, shot/hit/VLA data, PMS data and QA/ALRE MO signatures.
- f. Material Control: contains quantity, nomenclature, part number and contract number for requisitioned items. Also contains two blocks for AIMD-assist VIDS/MAF JCNs.
- g. ALRE Tool Control: contains lines for the W/C and central tool room tool POs signatures.

**9.6.5** When a maintenance action is completed, the appropriate work center will complete a MAF. This will provide a comprehensive record of the maintenance action performed and establish historical data for future reference.

**9.6.6** MAF retention:

- a. Corrective Maintenance Action. MAFs shall be retained by QA for a period of 1 year.
- b. Preventive Maintenance Action. For all PMS actions requiring data entry into OMMS, only the most recent MAF for each PMS action shall be retained by QA.



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## **9.7 Unscheduled (Corrective) and Scheduled (Planned Maintenance System (PMS)) Maintenance Procedures**

**9.7.1** Figure 9-6 depicts the normal flow of maintenance documentation during a corrective maintenance action and figure 9-7 depicts the normal flow for preventative maintenance procedures.

### **NOTE**

**MAFs should be filled out as the job progresses to avoid processing delays when the job is completed.**

## **9.8 ALRE PMS Maintenance Requirement (MR) Status Boards**

**9.8.1** PMS requirements are based on either calendar periods (e.g., daily, weekly, monthly) or situational requirements (number of catapult shots and arresting gear arrestments.) Documentation of shots and hits is mandatory to ensure that prescribed maintenance requirements and inspections are performed on time. Tracking of shots and hits is maintained by use of the Automated Shot and Recovery Log Program (ASRL), Daily "R" Status file and maintenance requirements (MR) status boards. Specific instructions on ASRL is contained in NAWCADLKE-48J500-0009. MR Status boards will be located in maintenance control and each applicable work center to track PMS Maintenance Requirements (R-checks).

**9.8.2** MR status boards will reflect, at a minimum, situational PMS maintenance requirements (R-checks). Status boards will be locally procured/produced and will contain information on each time/shot/hit-related maintenance task specified in the PMS system. The minimum data elements required include:

- a. MR card number (M-1R, M-15R, etc.)
- b. Brief description of task and frequency of requirement.
- c. Shot or hit number MR due and last accomplished.
- d. Total shots or hits to date.

**9.8.3** Maintenance control's MR status board will reflect all W/C requirements.

### **NOTE**

**Status boards are official records containing vital information. Maintenance control boards will be maintained and changed only by the ALRE maintenance officer, maintenance control supervisor, or a person specifically designated by the ALREMO. Work center boards will be maintained by the W/C supervisor or his/her designated assistant.**

**9.8.4** Work center supervisors will provide updated information on shots, hits or changes which affect equipment status as it occurs or at the completion of each operating day.

**9.8.5** Daily verification of the maintenance control MR status board with the work centers is essential to maintain current and correct job and equipment status. In order to ensure accuracy, correctness, and continuity of shot, hit, and/or inspection requirements, every status change must be reflected on each applicable MR status board.

**9.8.5.1** Daily, at a time specified by the M/C supervisor, each W/C supervisor shall verify MR status on his/her MR status board with maintenance control. Any variation in any MR element will be resolved at this time. Verification may be done via phone, intercom, or in person using a written list, as locally established.

**9.8.5.2** The W/C supervisor (or assistant) shall certify verification by annotating with date/time and initials alongside the W/C designator on the M/C MR status board. The M/C supervisor shall annotate date/time that all work centers have verified on the upper right-hand side of the M/C MR status board.

## **9.9 Supporting Maintenance**

**9.9.1** Certain ALRE maintenance support is provided by the ship's AIMD. Documentation of AIMD support requires use of the Visual Information Display System/Maintenance Action Form (VIDS/MAF) (OPNAV 4790/60) shown in figure 9-8 or entered into NALCOMIS or a work request. This is used to request AIMD services of items beyond V-2 division capability, including non-destructive inspection (NDI), emergency parts manufacture and other such services as may be needed. When AIMD support is required, a work request is initiated utilizing AIMD MAF form OPNAV 4790/60. The cognizant work center will initiate an ALRE MAF referencing the AIMD MAF JCN in the block provided. When the job is completed, the work center will forward the controlling ALRE MAF with the completed AIMD MAF copy attached to M/C for review. M/C reviews the accuracy of the completed MAF (with completed AIMD MAF attached), closes out the MAF and forwards the MAF to QA for filing. A copy may be provided to the work center.

## **9.10 Deviations from Normal MAF/MAF Card Procedures**

**9.10.1** Safety of operations is paramount. In those situations where extraordinary actions are required to either protect life and equipment or to accomplish the mission, routine documentation procedures may be waived until normal operations can be resumed.

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Documentation of all maintenance actions will follow the action in such cases; however, the proper quality assurance verification and surveillance must be maintained. The following guidelines will be adhered to:

a. In cases where immediate maintenance action is necessary to preclude certain or likely death/injury to personnel or loss/damage to equipment, and where time is extremely critical, emergency deviation from routine MAF flow/work documentation is justified and may be authorized. (See figure 9-9.)

b. If the ALRE maintenance officer/maintenance supervisor or higher authority has approved emergency deviation, only the MAF documentation procedure is modified. All maintenance procedures remain as previously described. The MAF may be initiated after the job is complete, provided the ALRE maintenance officer/maintenance supervisor and QA have ensured that all maintenance actions were satisfactorily completed by personally witnessing events. This is the only time equipment can go from DOWN to UP status without an ALRE maintenance officer/maintenance control supervisor signature on a MAF.

#### **NOTE**

**Ensure contract numbers of parts installed are annotated on the MAF when it is completed. ALRE Maintenance Officer/Maintenance Chief shall initial contract number block of ALRE MAF for all UNKNOWN contract number entries.**

c. In cases which do not meet the criteria for emergency deviation as given in paragraph 9.10a, but timely return of equipment to operational status is still necessary, the work center will take the MAF to the job site so that the ALRE maintenance officer/maintenance control supervisor may sign it off as a completed job immediately upon witnessing the work and appropriate QA inspection and operational check, if required. This procedure entails all the same elements as routine MAF flow/work documentation.

### **9.11 Tracking Outside Maintenance Activity Job Status**

9.11.1 During technical availability's or periods such as restricted availability's (RAVs), selected restricted availability's (SRAs), complex overhauls (COHs) and planned incremental availability's (PIAs), outside maintenance activities may repair or modernize Aircraft Launch and Recovery Equipment (ALRE). It is imperative that the ALRE maintenance officer monitors this industrial activity repair progress and performance. An additional VIDS board shall be utilized to track all work being performed within V-2 division by an activity other than ship's

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will still be tracked using the standard maintenance control and work center VIDS boards.

**9.11.2** The authorized integrated work package control document (IWPCD) will be used to identify jobs to be tracked and the accomplishing activities. This document also identifies cognizant work centers, JSNs of all work planned for VB work centers, and JSNs of all other jobs that may affect divisional work centers (but that are not listed under VB) such as ship alterations.

**9.11.2.1** During availabilities where the IWPCD is not used, JSNs may be obtained from the ship's force work list. Additionally, liaison with the ship's maintenance manager may help with determining screening action for jobs requiring outside maintenance activity assistance.

**9.11.3** Utilizing a MAF card specifically designed for the outside maintenance activity MAF board (see figure 9-11), transcribe the following information from the IWPCD: work center, JSN, brief job description, extended ships work breakdown structure (ESWBS), IWPCD item number, equipment location, and the activity accomplishing the task. Place each MAF card on the outside maintenance activity VIDS board under the section designated for that particular activity and W/C. The QA block at the bottom right corner of this MAF card may be used like that on a standard MAF card. The activity block at the bottom right corner may have the outside maintenance activity annotated and/or be color coded to indicate the activity; color coding should not conflict with those color codes described in paragraphs 9.5.3 through 9.5.4. When color-coding is used, a legend depicting which color refers to which activity should be displayed at the top of the VIDS board.

**9.11.4** Each job approved for accomplishment within the V-2 Division must be tracked utilizing either a locally printed Progress Report Sheet (PRS) figure 9-12, automated data base or other tracking method to maintain up to date status of each outside maintenance activity job and correspond to each MAF card on the outside maintenance activity VIDS board.

**NOTE**

**THE USE OF A PROGRESS TRACKING METHOD IS MANDATORY.**

**9.11.4.1** Review the IWPCD and transcribe the following to the tracking method: W/C, JSN, job description, ESWBS, and IWPCD item number.

**9.11.4.2** On a weekly basis, or as required, the tracking method utilized will be updated by indicating percentage toward completion

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and by annotating notes deemed necessary by the ALRE maintenance officer.

**NOTE**

**Ensure all jobs that require a functional test or inspection by ship's force personnel are monitored for completion of this step.**

**9.11.4.3** If utilized, PRSSs should be initiated for each job approved for accomplishment within V-2 Division. PRSSs shall be kept in a loose leaf, three-ring binder. Filing them in work center/job sequence number order provides an easy cross-reference with the outside maintenance activity VIDS board. A PRS may be discarded when that job is completed and the requisite forms have been completed (OPNAV 4790/CK, ALRE MAF, Configuration Service Change Status Form 1511, etc.).

**9.11.4.4** If a new job develops as a result of an Emergency Essential Repair (EER) or Assist Ship's Force (ASF) funding being made available, an additional MAF card must be originated and the MAF card placed on the outside maintenance activity VIDS board and added to whichever tracking method is utilized.

**9.11.5** In addition to completing the specific job on the Current Ship's Maintenance Project (CSMP), jobs having Equipment Identification Codes (EICs) for ALRE equipment (7A through 7M, LH, and TU), require an ALRE MAF to be originated and submitted. Submission of an OPNAV 4790/CK or Configuration Service Change Status Form No.1511 may also be required.

**9.11.6** When completing an ALRE MAF to document work accomplished by outside maintenance activities, the MAF shall be filled out as appropriate, with the following special instructions:

a. Block 29 (Action Taken):

(1) For maintenance actions where the outside activity provides all parts, ensure the numeral "3" (which means "Maintenance Completed, No Parts Required") is entered.

(2) For maintenance actions where ship's force provides some or all parts for the job, ensure the proper code is entered; also ensure the Remarks/Description section of the ALRE MAF is detailed enough to reflect those portions of maintenance performed by ship's force and by the outside activity.

**NOTE**

**For jobs performed by outside maintenance activities where ship's force provides some or all parts, or where ship's force provides maintenance assistance, including system or component**

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disassembly or reassembly, a standard MAF card, an outside maintenance activity MAF card, and an ALRE MAF are required. Each will bear the same JSN. The standard MAF card will be placed on the normal divisional VIDS board to track ship's force maintenance and/or parts; the outside activity MAF card will be used to track that activity's job status; and the MAF will be used to document the job. Only ship's force man-hours should be recorded on the normal MAF/MAF card. The standard MAF card should never be removed from the divisional VIDS board before the outside maintenance activity MAF card is removed from its VIDS board.

b. Block 36 (Continuation Sheet): Ensure this block is checked when it is necessary to continue Block 35 (Remarks/Description) comments on additional ALRE MAFs.

c. Block 38 (First Contact/Maint. Man): Enter the name of the outside activity that completed the work, i.e., VRT, etc. Do not attempt to obtain a signature for accomplished work.

d. Final QA Inspected by:

(1) For maintenance actions where the outside activity provides all parts, this block is used by ship's force to indicate final inspection of the work and receipt of components/contract numbers installed and NDI documentation. For work completed by an outside maintenance activity, this block does not represent a total quality assurance effort on the part of ship's force. The signature of the quality assurance inspector (QAI) or collateral duty quality assurance inspector (CDQAI) in this block merely signifies that the equipment was functioned and the component or system operates as required.

(2) For maintenance actions where ship's force removes the equipment, reinstalls the equipment, or functions the equipment, the QAI/CDQAI signature signifies that all documentation of the outside activity's work is complete/correct (including required documentation for non-destructive inspection (NDI), hydrostatic testing, etc.) and that all work accomplished by ship's force has received the applicable inspections by V-2 QA.

e. Start/stop times: These blocks are used to assist the work center supervisor in determining total ship's force man-hours expended for the job. This total, including any maintenance support (MS) man-hours, will be entered in Block 30 (S/F MHRS).

#### NOTE

Do not enter any man-hours expended by outside maintenance activities in the start/stop times blocks.

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f. Block 35 (Remarks/Description): A concise narrative description of the completed maintenance action shall be entered here.

g. The material control section of the ALRE MAF will not normally be utilized when documenting accomplishment of outside maintenance activity work. The ALRE tool control section will be completed only when ship's force personnel check out tools from the work center or central tool room.

**NOTE**

Ship's force personnel should obtain contract numbers, etc., from the outside maintenance activity for equipment that was installed, modified, or repaired. Enter this information or edit existing records, as appropriate, in the Installed/Discrepant Parts List (Shipboard Installed Parts database) to ensure that an accurate record of installed equipment is kept onboard and is forwarded to NAVAIRWARCENACDIV Lakehurst.

**NOTE**

If an adequate number of personnel cannot be maintained in order to execute proper QA of ship's force and shipyard maintenance actions, the type commander shall immediately be notified.

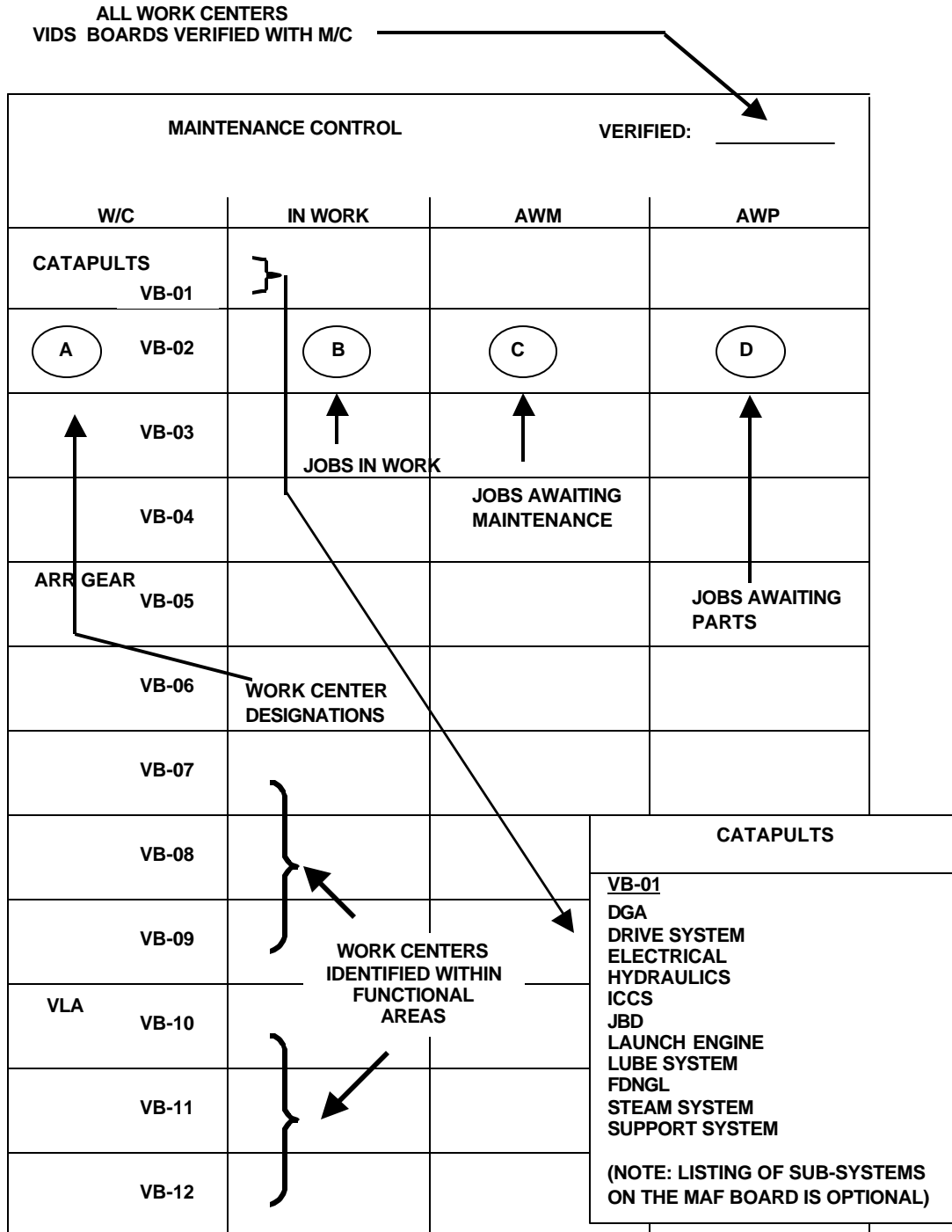


Figure 9-1. Maintenance Control VIDS Boards



DATE/TIME ALL WORK CENTER  
VIDS BOARDS VERIFIED WITH M/C

		MAINTENANCE CONTROL					
		IN WORK	AWM	AWP	PMS	QA	TAG OUT
VB-01				WEEKLY PMS REQUIREMENTS			
(A) VB-02	(B)	(C)	(D)	(E)	(F)	(G)	
VB-03	JOBS IN WORK	JOBS AWAITING MAINT		JOBS REQUIRING POST-MAINT VERIFICATION			
VB-04			JOBS AWAITING PARTS			VISUAL TAG-OUT INDICATOR	
ARR GEAR VB-05	WORK CENTER DESIGNATIONS						
VB-06							
VB-07	}						
VB-08							
VB-09							
VLA VB-10	}	WORK CENTERS IDENTIFIED WITHIN FUNCTION AREA					
VB-11							
VB-12							

Figure 9-2. Maintenance Control VIDS Boards (Alternate)

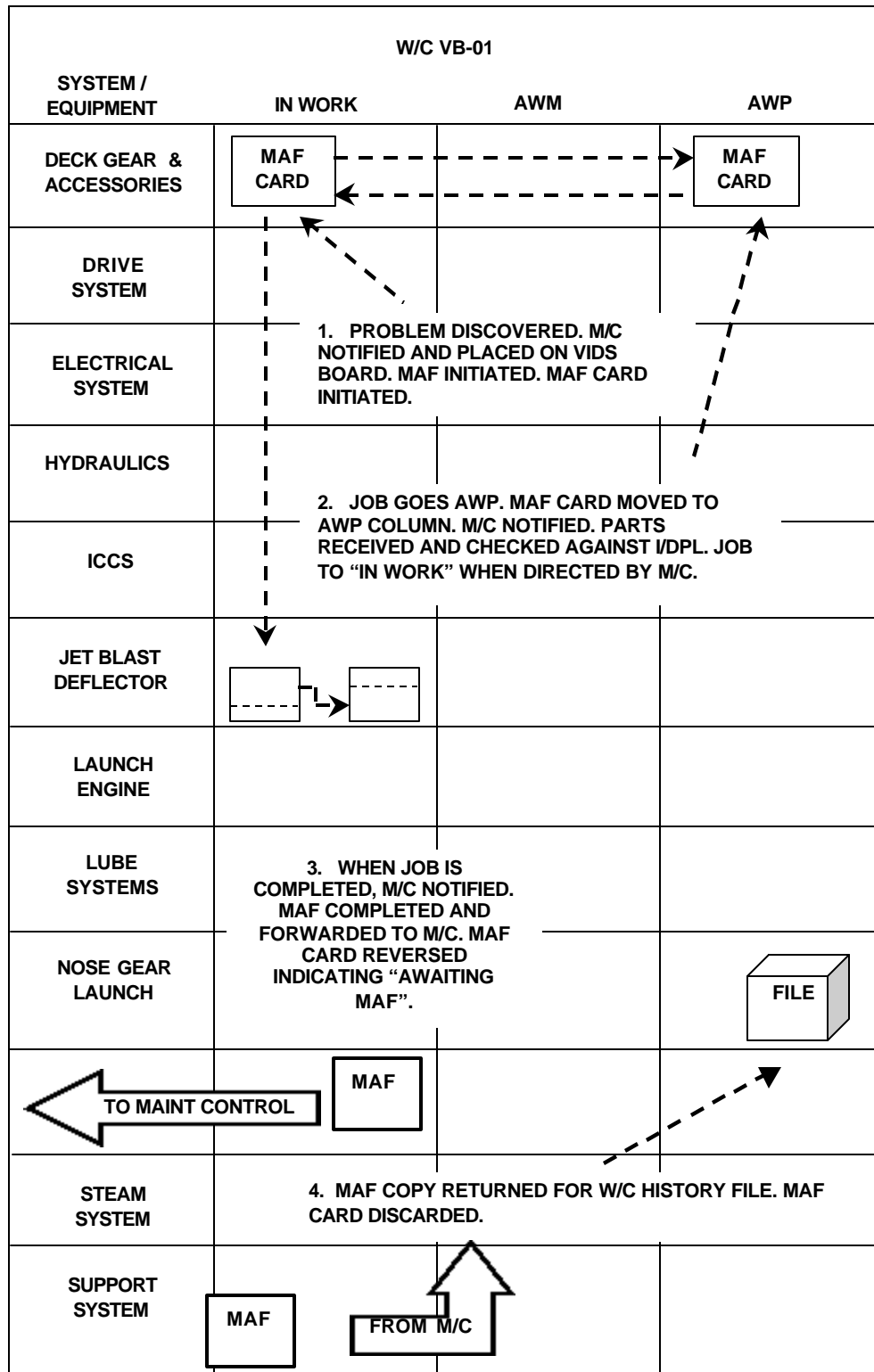


Figure 9-3. Work Center VIDS Board

***AWAITING MAF***			JSN	W/C			
		JULIAN DATE	JCN				
JCN		JULIAN DATE	DISCREPANCY/PMS	PRIORITY			
W/C	JSN		MRC _____	QA	MS	DN	LIM

The MAF Card is locally produced and is used to monitor and manage the workload. Outstanding maintenance actions will be indicated by a MAF Card on both the M/C and W/C VIDS Boards, as well as in QA and MS, when applicable. When the job is completed and reported to M/C, the MAF Card is simply reversed on the board to indicate "AWAITING MAF" until the MAF is completed, delivered to M/C, and signed by the Maintenance Officer/Maintenance Control Supervisor. M/C then discards the MAF Card and the W/C discard the MAF Card upon notification from M/C. QA will discard its MAF Card upon receipt of MAF. MS discards its MAF Card upon job completion and transfer of man-hours to summary sheet.

NOTE: The large, unused central portion of the front of the MAF Card may be modified locally to help track supply data supply data, man-hours, work start/stop, etc., if desired.

Figure 9-4. MAF Card

[illegible]

Figure 9-5. Aircraft Launch & Recovery (ALRE) Maintenance Action Form (OPNAV 4790/160)

Note: Task depicted horizontally occurs at approximately the same time.				
Work Center	Maintenance Control	Quality Assurance	Maintenance Support	Material Control
1a. Finds a problem, Notify M/C of problem.	1b. Notified of problem. Notify QA and MS (as applicable)	1c. Notified of problem (as applicable)	1d. Notified of problem (as applicable)	
2a. Enters MAF data into OMMS to get JSN (AWR deferral Process). Print MAF from OMMS and fill Out MAF Card				
3a. Notify M/C of JSN	3b. Get JSN from W/C. Fill out MAF Card and place in AWM. Notify QA and MS of JSN (as applicable).	3c. Get JSN from M/C. Fill out MAF Card and place in AWM (as applicable).	3d. Get JSN from M/C. JSN. Fill out MAF Card and place in AWM (as applicable)	
4a. As directed by M/C, call and place MAF Card IN WORK.	4b. Inform W/C to start job. Notify QA and MS (as applicable).	4c. MAF Card to IN WORK (as applicable).	4d. MAF Card to IN WORK (as applicable).	
5a. Assign workers. Initiate Tag Out procedures (as applicable). Obtain tools.	5b. Issue Red "Danger" Tags (as applicable).			
6a. Order parts through OMMS (as applicable). Notify M/C that parts are requested. Move MAF Card to AWP	6b. Move MAF Card to AWP. Notify Material Control of JSN. Notify QA and MS (as applicable.)  6f. Review printout of parts requested. Approve parts order and deliver printout to Material Control.	6d. MAF Card to AWP (as applicable).	6e. MAF Card to AWP (as applicable).	6c. Call up JSN in OMMS and perform a "print screen" of parts ordered by W/C. Deliver printout to Maint. Officer/ Chief.  6g. Approve parts in OMMS for ordering
7b. Pick up parts from Material Control. Notify M/C and place MAF Card IN WORK (as directed by M/C). Screen I/DPL. Annotate contract numbers on OMMS printed MAF.	7c. Place MAF Card IN WORK. Notify QA and MS (as applicable).	7d. Place MAF Card IN WORK (as applicable).	7e. Place MAF Card IN WORK (as applicable).	7a. Receive parts Screen I/DPL. Notify W/C to pick up parts. Notify M/C. NOTE: ALRE Maint. Officer/ Chief shall initial contract number block of ALRE MAF for all UNKNOWN contract number entries.

Figure 9-6. Unscheduled (Corrective) Maintenance Procedures  
(pg 1 of 2)

Note: Task depicted horizontally occurs at approximately the same time.				
Work Center	Maintenance Control	Quality Assurance	Maintenance Support	Material Control
8a. Job complete. Comply with tool Control, clear tags, and notify M/C. Perform Functional checks (as applicable).	8b. Notified job complete. Notify QA(as applicable).	8c. Witness functional checks (as applicable).	8d. Job complete Document MS man-hours. Discard MAF Card	
9a. Enter information from printed OMMS MAF into OMMS (under Change maintenance actions). Print 2 part MAF from OMMS.				
10a. Maintenance person signs printed MAF.		10b. Signs MAF.		
11a. WCS signs and forwards MAF to M/C. Turn MAF Card to AWAITING MAF.	11b. Turn MAF Card to AWAITING MAF.	11c. Turn MAF Card to AWAITING MAF (as applicable).		
12b. Receive copy of MAF for W/C history. Discard MAF Card.	12a. Maintenance Officer/Chief review, Sign MAF. M/C. OMMS operator enters data into OMMS and provides copy to W/C for history files. Discard MAF Card.			
	13a. After MC OMMS operator enters data into OMMS, enters parts replaced into I/DPL, closes JSN. Forwards original MAF to QA	13b. Receives MAF original for history file. Discard MAF Card.  <b>NOTE</b> When requesting work from AIMD, attach Copy 4 of VIDS/MAF to ALRE		

Figure 9-6. Unscheduled (Corrective) Maintenance Procedure  
(pg. 2 of 2)

<b>Note: Task depicted horizontally occurs at approximately the same time.</b>				
<b>Work Center</b>	<b>Maintenance Control</b>	<b>Quality Assurance</b>	<b>Maintenance Support</b>	<b>Material Control</b>
1a. Identifies scheduled maintenance to be completed.				
2a. Enters MAF data into OMMS to get JSN (AWR deferral process). Print MAF from OMMS and fill out MAF Card.				
3a. Notify M/C of JSN.	3b. Get JSN from W/C. Fill out MAF Card and place in AWM. Notify QA and MS of JSN (as applicable).	3c. Get JSN from M/C. Fill out MAF Card and place in AWM (as applicable).	3d. Get JSN from M/C. Fill out MAF Card and place in AWM (as applicable).	
4a. As directed by M/C, call and place MAF Card IN WORK.	4b. Inform W/C to start job. Notify QA and MS(as applicable).	4c. MAF Card to IN WORK (as applicable).	4d. MAF Card to IN WORK (as applicable).	
5a. Assign workers. Initiate Tag Out procedures (as applicable). Obtain tools.	5b. Issue Red "Danger" Tags (as applicable).			
6a. If parts are needed, order parts through OMMS. Notify M/C that parts are requested. Move MAF Card to AWP	6b. Move MAF Card to AWP. Notify Material Control of JSN. Notify QA and MS (as applicable.)  6f. Review printout of parts requested. Approve parts order and deliver printout to Material Control.	6d. MAF Card to AWP(as applicable).	6e. MAF Card to AWP(as applicable).	6c. Call up JSN in OMMS and do a "print screen" of parts ordered by W/C. Give printout to Maint. Officer/Chief.  6g. Approve parts in OMMS for ordering
7b. Pick up parts from Material Control. Notify M/C and place MAF Card IN WORK (as directed by M/C). Screen I/DPL. Annotate contract numbers on OMMS printed MAF.	7c. Place MAF Card IN WORK. Notify QA and MS (as applicable).	7d. Place MAF Card IN WORK (as applicable).	7e. Place MAF Card IN WORK (as applicable).	7a. Receive parts. Screen I/DPL. Notify W/C to pick up parts. Notify M/C NOTE: ALRE Maint. Officer/ Chief shall initial contract number block of ALRE MAF for all UNKNOWN contract number entries.

**Figure 9-7. Scheduled Maintenance (PMS) Procedures**  
(pg. 1 of 2)

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Note: Task depicted horizontally occurs at approximately the same time.				
Work Center	Maintenance Control	Quality Assurance	Maintenance Support	Material Control
8a. Job complete. Comply with tool control, clear tags, and notify M/C. Perform Functional checks (as applicable).	8b. Notified job complete. Notify QA(as applicable).	8c. Witness functional checks (as applicable).	8d. Job complete. Document MS man-hours. Discard MAF Card.	
9a. Enter information from printed OMMS MAF into OMMS (under change maintenance actions). Print MAF from OMMS.				
10a. Maintenance person signs printed MAF.		10b. Signs MAF		
11a. WCS signs and forwards MAF to M/C. Turn MAF Card to AWAITING MAF.	11b. Turn MAF Card to AWAITING MAF.	11c. Turn MAF Card To AWAITING MAF (as applicable).		
12b. Receive copy of MAF for W/C history. Discard MAF Card.			12a. Maintenance Officer/Chief review, Sign MAF. M/C  OMMS operator enters data into OMMS and provides copy to W/C for history files. Discard MAF Card.	
	13a. After MC OMMS operator enters data into OMMS, enters parts into I/DPL, closes JSN. Forward. original MAF to QA.  <b>NOTE</b> When requesting work from AIMD, attach Copy 4 of VIDS/MAF to ALRE MAF and retain by QA.	13b. Receives MAF original for history file. Discard MAF Card		

Figure 9-7. Scheduled Maintenance (PMS) Procedure  
(pg. 2 of 2)



**Figure 9-8. VIDS/MAF (OPNAV 4790/60)**

<b>Note: Task depicted horizontally occurs at approximately the same time.</b>				
<b>Work Center</b>	<b>Maintenance Control</b>	<b>Quality Assurance</b>	<b>Maintenance Support</b>	<b>Material Control</b>
1a. Discrepancy occurs. Equipment is down. Notify M/C. Place MAF Card on VIDS Board.	1b. Notified of problem. Notify Air Boss. Alert QA and MS (as applicable). Obtain JSN and place MAF Card on VIDS Board.	1c. Notified of problem (as applicable). Place MAF Card on VIDS Board	1d. Notified of problem (as applicable) Place MAF Card on VIDS Board.	
2b. Assign Workers. Initiate Tag Out procedures (as applicable). Obtain tools, start job. When notified by M/C. Order parts as required.	2a. Notify W/C to start job. Issue Red "Danger" Tags (as applicable).			2c. Requisition parts
3c. Receive parts. Record contract numbers for MAF entry.		3b. Screen parts in I/DPL prior to installation.		3a. Receive parts. Screen I/DPL. Notify W/C to pick up parts. Notify M/C NOTE: ALRE Maint. Officer/ Chief shall initial contract number block of ALRE MAF for all UNKNOWN contract number entries.
4a. Work complete. Functional checks Performed, as required. M/C notified. Status. Notify Air Boss.	4c. Maint. Officer/Chief witnesses maintenance Equipment placed in UP.	4b. Inspect job and witness Functional checks, as required	4d. Job complete. Document MS man-hours.	
5a. MAF completed, signed, and forwarded as appropriate. MAF Card processing follows normal flow.	5c. MAF/MAF Card processing follows normal MAF flow.	5b. MAF signed. MAF/MAF Card processing follows normal flow.		

**Figure 9-9 Emergency MAF Procedures**

OUTSIDE MAINTENANCE ACTIVITY VIDS BOARD														
	AWM					IN WORK					AWD			
VB01	VB01-2691	FAIRLEAD SHEAVE	QA	PSNS		VB01-2961	ALIGN TROUGH CVRS #1	QA	VRT		VB01 2742	CLASS "B" OVHL WTRBK PMP	QA	SIMA
	VB01-2753	INSTALL MK-2 NGL #1	QA	PSNS		VB01-2761	REPLACE ROTARY DRUM ON CAT #1	QA	VRT					
VB02	VBO2-2688	BOLT HOLE REPAIR #2	QA	VRT		VBO2-2689	STRESS RELIEVE LV PIPING #2	QA	PSNS					
VB02	VB03-1921	WIRE SPRAY JBD PIT #3	QA	SIMA		VB03-1963	INSTALL JBD DUPLEX STRAINER	QA	SUPSHIP					
VB04	VB04-1815	MANUF STEAM SMOTHERING BOX	QA	SIMA										

**AWM = Job is Awaiting Maintenance**

**INWORK = Job is in work**

**AWD = Job is complete, but M/C is Awaiting Documentation**

**Figure 9-10. Sample Outside Maintenance Activity VIDS Board**

Outside Maintenance Activity MAF Card				
ESWIBS NO		REQUIRED ?		SUBMITTED ?
ITEM NO		<input type="checkbox"/>	ALRE MAF	<input type="checkbox"/>
LOCATION		<input type="checkbox"/>	COMP 2K	<input type="checkbox"/>
POC		<input type="checkbox"/>	4790/CK	<input type="checkbox"/>
PHONE NO.		<input type="checkbox"/>	FORM 1511	<input type="checkbox"/>
		<input type="checkbox"/>		<input type="checkbox"/>
W/C	JSN	JOB DESCRIPTION	QA	ACTIVITY

The Outside Maintenance Activity MAF Card is locally produced and is used to monitor and manage maintenance performed by activities other than ship's force. Outstanding maintenance actions will be indicated by a MAF Card on the Maintenance Control (Only) Outside Maintenance Activity VIDS Board. When the job is completed, including all required functional test, this card is moved to the AWD (Awaiting Documentation) column on the board. After Maintenance Control verifies that all associated reports have been submitted (OPNAV 4790/CK, Form 1511, etc.) and the ALRE MAF has been signed by the Maintenance Officer/Chief, this card is removed from the VIDS Board and discarded.

Figure 9-11. Outside Maintenance Activity MAF Card

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PROGRESS REPORT SHEET										
PERCENTAGE TOWARD COMPLETION										AWAITING FUNCTION
10	20	30	40	50	60	70	80	90	100	
ACTIVITY:			POC:			PHONE NO:				
COMMENTS										
W/C	JSN		DESCRIPTION			ESWIBS		ITEM NO.		

Figure 9-12. Sample Progress Report Sheet